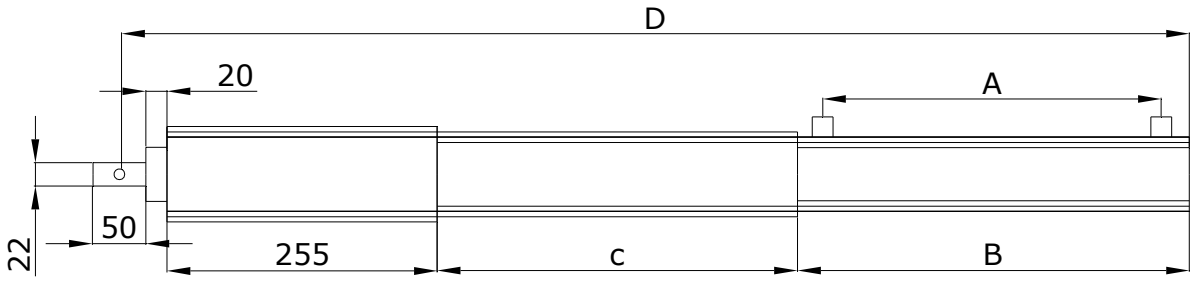
ENGLISH

QK-H300 QK-H400 HYDRO

HYDRAULIC SWING GATE OPENER

USER INSTALLATION MANUAL

TECHNICAL FEATURES	QK-H300 QK-H300BC	QK-H400 QK-H400BC
POWER SUPPLY	230VAC 50 Hz	
CURRENT ABSORBED (A)	1,6	
POWER ABSORBED (W)	300	
INCORPORATED CAPACITOR (μF)	10	
PROTECTION LEVEL (IP)	55	
OPENING TIME (sec)	19	
TRAVEL (mm)	280	380
MAX. THRUST (N)	9400	
OPERATING TEMPERATURE Min Max (℃)	- 30°+ 70°	
THERMAL PROTECTION ℃	120	
WORK CYCLE (%)	80	
ACTUATOR WEIGHT (Kg)	9	10



PRE-INSTALLATION CONTROL

Before installing the automation, you must check that the gate's shutter:

- The leaf turn freely in the hinges and without sticking in the ground
- It does not swing during its movement;
- is kept in axis by the special hinges;
- the leaves have the proper stoppages when opening and closing.

Borinato F.lli Snc is liable only for products it manufactures and commercializes. Once automated, the gate becomes a machine and is therefore subjected to the rules of the " Machinery Directive". It is on the installer to verify its security. **WARNING:** Borinato F.lli Snc is not liable for any damages to people, animals or things due to unauthorised modifications, alterations or betterments on its products by third parties.

GENERAL ADVICE

Install a gate's safety system that complies with current regulations. Choose short routes for cables and keep power cables separate from control ones. Install the control card in a waterproof box.
Please refer to current regulations when setting the gear motor's maximum torque.
We advice you to install an outdoor switch, in compliance with European standards on the issue of safety, to turn the electricity off when servicing the gate.
Check that each single installed device is efficient and effective.
Affix easily readable signs warning about the presence of a motorised gate.

USE
It is absolutely forbidden to use the device for any other purposes. Installed control board (which must have built-in electric friction), allows selecting the following functions:
automatic: one control impulse will open or close the gate;
semi-automatic: one control impulse will open or close the gate.
In case of blackout, act on the manual unlocking device and move manually the gate. Remember that this is an automatic device powered by electricity, consequently use with care. In particular, remember:

- not to touch the device with wet hands and/or wet or bare feet;
- to turn off electricity before opening the control box and/or actuator;
- not to pull the lead to pull the plug out;
- to put the gate in movement only when it is completely visible;
- to keep out of the gate's range of action if it is moving. Wait until it has stopped;
- not to let children or animals play near the gate;

not to let children use the remote control or other operating devices

INSTALLATION MATERIALS

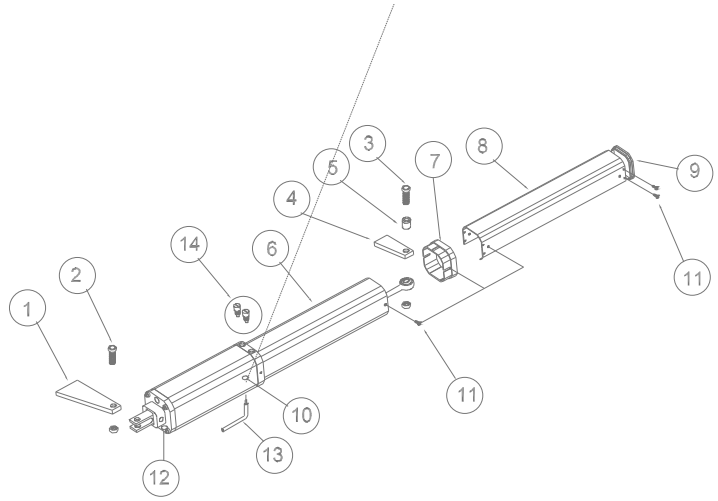


Fig.1

HYDRO 300 - 400

1 – Bracket to wall Length 130 mm
2 – Bolt M12 X 30 with Nut
3 – Bolt M12 x 55 with Nut
4 – Bracket, to be weld to the leaf, length 65 mm
5 - Bushing
6 – Cylinder cover
7 – Manifold
8 – Tie rod cover
9 – Cup
10 – Release valve (for emergency manual operating)
11 – Fastening covers screws
12 – Breather screw
13 – Release valve key
14 - By pass valve (adjusting the piston thrust)

INSTALLATION

1- Arrange the electric cables installation and connection according to the below Fig.2

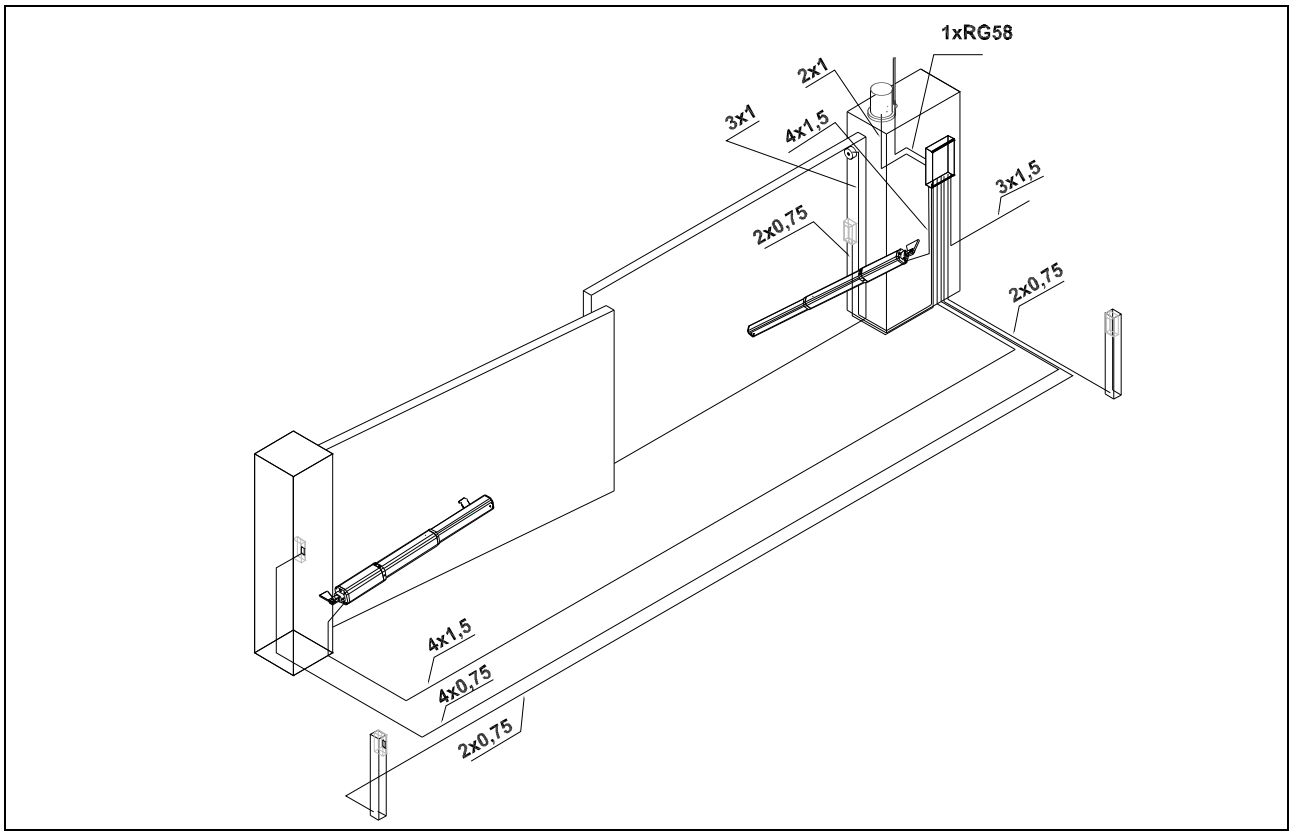


Fig 2

2- Unloose and remove the two screws # 11 (fig 1) that fastens the tie rod cover to the cylinder.

Assemble:

- the wall brackets # 1 to cylinder bracket by means of the bolt and nut # 2
- the leaf bracket # 4 to cylinder rod by means of the bushing # 5 and bolt / nut # 3

3- Preassemble the cylinder to the gate according to the fig 3 and table 1

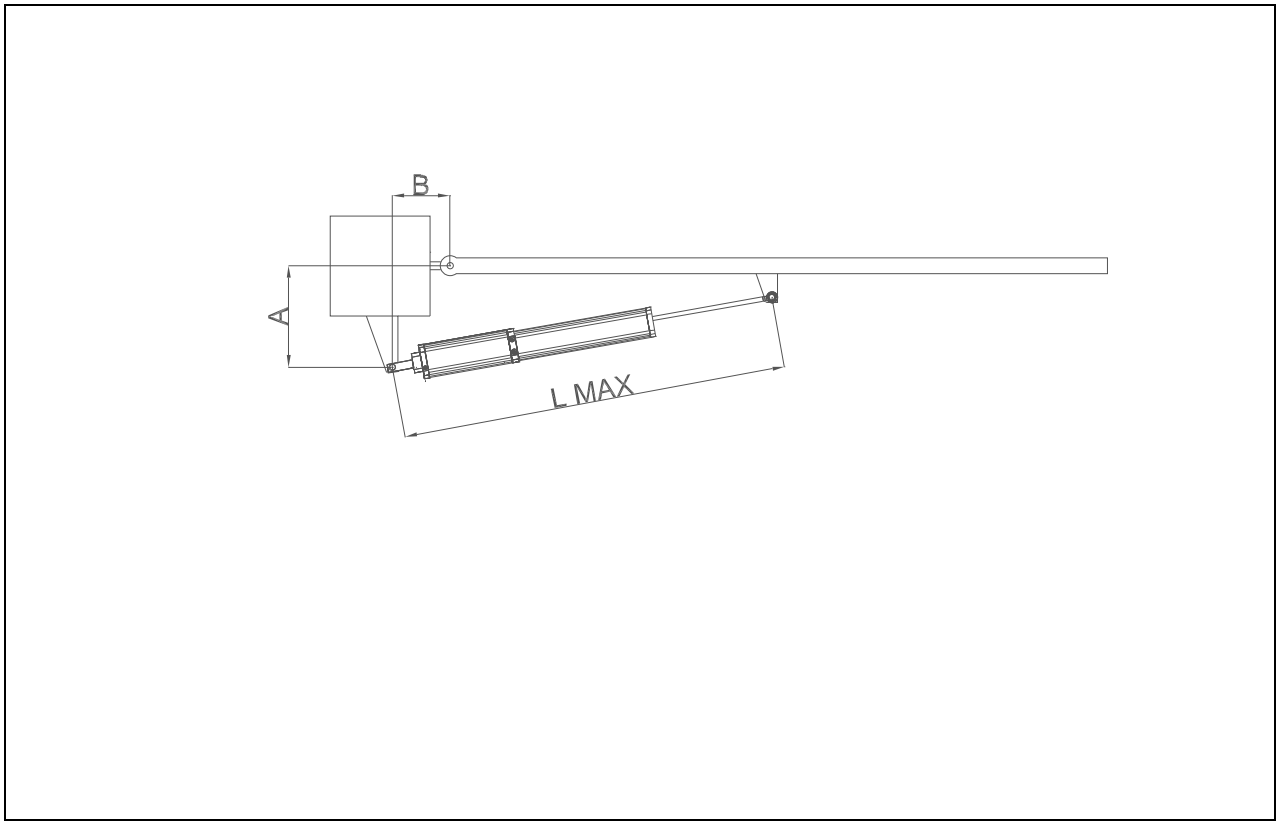


Fig 3

QK-H300						QK-H400					
α = 90°			α = 95°			α = 90°			α = 95°		
A (mm)	B (mm)		A (mm)	B (mm)		A (mm)	B (mm)		A (mm)	B (mm)	
	min	max		min	max		min	max		min	max
100	120	170	120	130	170	110	120	250	120	120	220
110	120	170	130	130	170	120	120	250	130	120	220
140	120	150				150	120	250	160	120	210
L MAX (mm)		1010				200	120	190	210	120	160
						210	120	190	220	120	160
						220	120	180	230	120	130
						230	120	160	240	120	120

Table 1

4- Temporary fix the actuator to the wall and to the leaf (tack weld) and turn the leaf gate from the close position up to the max. open position (normally 95°) and check that the leaf turn freely in the hinges and without any swing during its movement.

5- Provide to complete the assembly of the actuator to the wall and to gate leaf.

6- Connect to the power supply cable 4x1,5 sqmm

7- Proceed with the control board programming (see the CONTROL BOARD USER MANUAL)

Adjust the actuator thrust acting with the screwdriver on the by pass valves #14

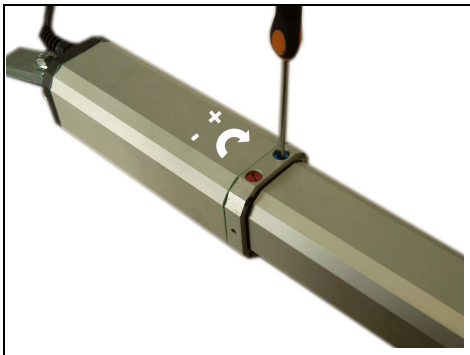


Fig. 4

The opening and closing forces transmitted to the gate by the cylinder are regulated by adjusting two by pass valves.
The blue valve adjusts the opening pressure.
The red valve the closing pressure.

+ increase the actuator thrust

- decrease the actuator thrust

8- After installation take away the breather screw from the actuator Fig. 5

Fig. 5

10 – To release the opening and operate the leaves manually insert the release key as shown in the Fig. 6

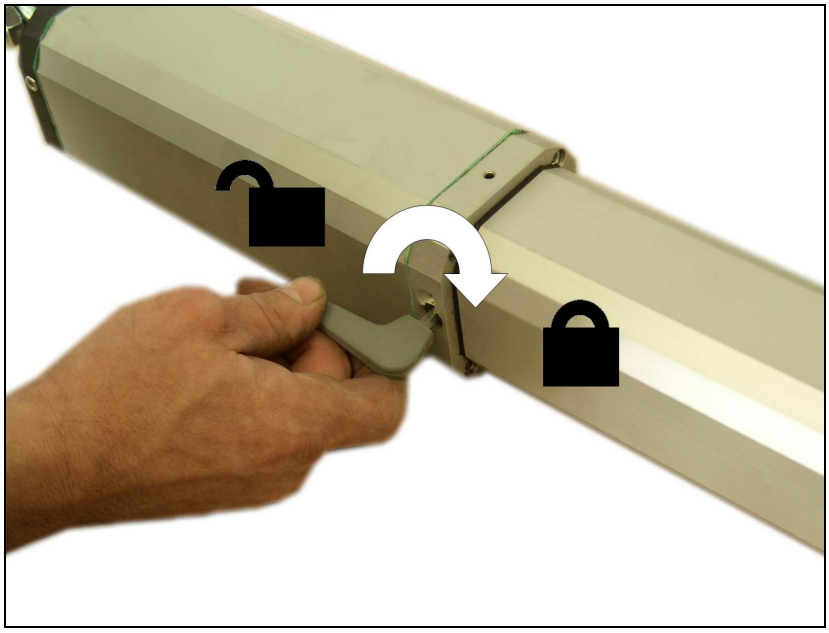


Fig. 6

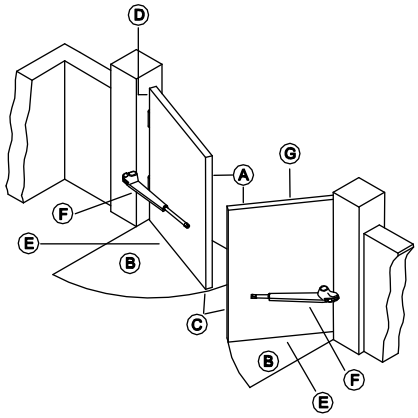


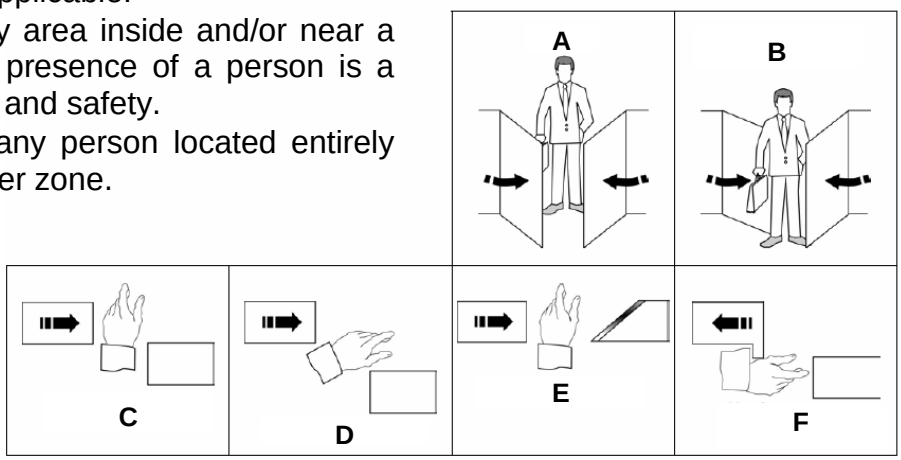
Fig 7

Risk Areas on Hinged Gates (figure 7)

LEGEND OF MECHANICAL RISKS CAUSED BY MOVEMENT

In accordance with the Regulation on Machinery, the following definitions are applicable:

- "Danger Zones:" any area inside and/or near a machine where the presence of a person is a risk to his/her health and safety.
- "Exposed Person:" any person located entirely or partially in a danger zone.



A. Impact **B.** Crushing **C.** Insulation

D. Conveyance **E.** Cutting **F.** Slicing

The installation must take a close risk examination to prevent crushing conveying cutting, grappling trapping so to guarantee a safe installation for persons animal and objects. Refer to the law applicable in the country where the installation takes place.

DECLARATION OF COMPLIANCE

(by the installer)

The undersigned:

Address:

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in charge of the set-up, declares that the product:

Gate type:

Location:

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are in compliance with the essential safety requirements of the regulations:

- ✓ Regulation 89/392CE on Machinery and its subsequent amendments;
- ✓ EMC Regulation 89/336/CE (Legislative Decree 615/96);
- ✓ BT Regulation 73/23/CE e 93/68/CE (Legislative Decree 626/96);
- ✓ CE Machinery Directive 98/37 and directive 93/68/CE-72/23/CE-92/31/CE;

and also declares that the related and/or specific national technical regulations have been followed:

- ✓ EN 12453/EN 12445 on Industrial, Commercial and Residential Gates and Doors – Safe Use of Motorized Doors – Requirements and Classification – Test Methods;
- ✓ EN 12604/ EN 12605 on Industrial, Commercial and Residential Gates and Doors – Mechanical Aspects – Requirements and Classification – Test Methods;
- ✓ CEI 64/8 Electrical Systems Using Nominal Tension Not Higher Than 1000V a.c. and 1500 V d.c.;
- ✓ EN 13241-1 (Industrial, commercial and garage doors and gates), conformity evaluation (6.3).

Notes:

Place and date: ……

DECLARATION OF COMPLIANCE
(in accordance with the European Regulation UE89/392 Appendix IIA)

Manufacturer: Borinato F.lli Snc

Sede legale e stabilimento 1	**Stabilimento 2**
Via Chiesa, 59 36040 San Germano Dei Berici (VI) Italia	Via Seccalegno, 19 36040 Sossano (VI) Italia

hereby declares, under his liability, that the products:
Actuators QK-H300, QK-H300BC, QK-H400, QK-H400BC

are in compliance with the essential safety requirements of the regulations:

- ✓ Regulation 89/392CE on Machinery and its subsequent amendments;
- ✓ EMC Regulation 89/336/CE (Legislative Decree 615/96);
- ✓ BT Regulation 73/23/CE e 93/68/CE (Legislative Decree 626/96);
- ✓ CE Machinery Directive 98/37 and directive 93/68/CE-72/23/CE-92/31/CE;

and their amendments and modifications, and with the regulations set forth by the National Legislative Body of the country in which the machinery is destined for use.

Sossano, 07/18/2005

The Legal Representative

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